#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 1.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-000365

Address: 333 Burma Road **Date Inspected:** 17-Aug-2007 City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1500 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: American Bridge/Fluor Enterprises, a JV **Location:** Benicia, CA

**CWI Name:** Michael Johnson **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** 

Yes No N/A **Delayed / Cancelled:** 34-0006 **Bridge No: Component:** Procedure Qualification Record (PQR) Test

### **Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector Danny C. White (B89) is present at the Ironworkers Apprenticeship Training Facility as requested by American Bridge/Flour (ABF) for the purpose of witnessing Procedure Qualification Record (PQR) tests. On this date, the QA Inspector observed the following personnel present: Smith-Emery Company Quality Control (QC) Representative Certified Welding Inspector (CWI) Mr. Michael Johnson, ABF Representatives Mr. Tommy Gibson, Mr. Rick Clayborn and welder Mr. Dan Gordon.

The QA Inspector observed of welding on the second attempt to weld PQR test plate known as ABF-PQR-025-2A. Mr. Johnson monitored welding amperage, voltage and travel speed parameters. This PQR plate is being welded in the 1G position. The welders are using .072 inch diameter (1.8mm) Hobart Fabshield XLR 8 E71T-8JD H8 (FCAW-S) process and utilizing a Bug-O Systems mechanical device that travels on a magnetic track. Welder Dan Gordon deposited (7) total number of passes. For specific welding parameters recorded during this PQR see Caltrans Welding Witness Report, TL-6032 generated upon completion of this PQR test plate.

## **Summary of Conversations:**

The QA Inspector informed the QC Inspector that he observed possible piping porosity scattered throughout the root pass of the above mentioned PQR test plate. The QC Inspector informed the QA Inspector that this was considered surface chicken scratch and will be easily removed by grinding. The QA Inspector observed the root pass was ground and observed the ground surface with the aid of a bright white light and magnification and detected what appeared to be very small (nearly un-measurable) round indications scattered occasionally throughout the root weld pass. The QA Inspector informed the QC Inspector and ABF Representatives Mr. Tommy Gibson of the above mentioned discrepancy. See attached photo for additional information.

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The QA Inspector was informed that informational Ultrasonic Testing (UT) has been performed on the PQR plate known as ABF-PQR-011-1C and there were no rejectable indications found and an acceptable indication was found having an indication rating of plus +12 which was found approximately 180 millimeters from the bottom end of the plate. The QA inspector issued the Lot Number B89-012-07 affixed to the face of this PQR plate.



#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	White, Danny	Quality Assurance Inspector
Reviewed By:	Mertz,Robert	QA Reviewer